## **Market-Based Approaches Track**

Trading Carbon Credits: The Role for Agriculture in Reducing Global Warming Workshop

## The Carbon Market: Producer Challenges

The US agricultural sector offers substantial carbon sequestration opportunities. Two promising options are (1) land conversion from crop production or pasture to forests (afforestation) and (2) greater use of conservation tillage. The purpose of this presentation is to assess the challenges and opportunities of a carbon market from a producer's perspective. Can producers profit from participating in a carbon market? Could the utilization of a collective action approach optimize their benefits?

The feasibility and trade-offs associated with alternative market approaches will be discussed. The guidelines or procedures by which producers establish their carbon sequestration credits and sell them in a market have yet to be defined. On a practical level, how will carbon producers/sellers and carbon buyers interact? The general impact of various alternative schemes on producer risk and benefits, transaction costs, and moral hazard will be presented.

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# Carbon Credits - A New Agricultural Commodity

Carbon sequestration is a topic worth exploring for it's potential impact on American agriculture. Sequestering additional carbon in the soil provides an opportunity to improve agricultural production plus benefit the environment Soil carbon helps strengthen organic matter content of the soil, thus the establishment of carbon credits will have potential to benefit the landowner, farmer, soil and environment.

What will be key benefits for people attending the presentation: To explore a new potential cash crop for American agriculture, plus see how carbon sequestration can improve soil productivity, improve the environment, and increase the sustainability of agricultural farming operations.

Practices such as no-till and reduced-till farming, cropland retirement, reduced equipment use, reforestation, and livestock manure management practices have the potential to establish carbon credits.

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# **Approaches to Assessing Carbon Credits** and Identifying Trading Mechanisms

Andrew Manale will present key issues that need to be resolved in developing a market in agricultural soil carbon credits. He compares the relative difficulty of assessing and trading soil carbon credits with two existing environmental markets–sulfur trading and wetlands mitigation banking and introduces the concept of equivalence where the risk of nonperformance may not be quantifiable. Finally, he discusses alternative mechanisms for encouraging trades in soil carbon credits.

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